



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/426,380	10/25/99	GATLEY	W FASV-131-C1

LORUSSO & LOUD
440 COMMERCIAL STREET
BOSTON MA 02109

MMC170718

EXAMINER

PEREZ, G

ART UNIT

PAPER NUMBER

2834

DATE MAILED:

07/18/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No. 09/426,380	Applicant(s) GATLEY ET AL.
Examiner Guillermo Perez	Group Art Unit 2834



Responsive to communication(s) filed on May 16, 2000

This action is **FINAL**.

Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle* 1035 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

Claim(s) 1-25 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

Claim(s) _____ is/are allowed.

Claim(s) 1-25 is/are rejected.

Claim(s) _____ is/are objected to.

Claims _____ are subject to restriction or election requirement.

Application Papers

See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

The drawing(s) filed on _____ is/are objected to by the Examiner.

The proposed drawing correction, filed on _____ is approved disapproved.

The specification is objected to by the Examiner.

The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

All Some* None of the CERTIFIED copies of the priority documents have been received.

received in Application No. (Series Code/Serial Number) _____.

received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

Notice of References Cited, PTO-892

Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

Interview Summary, PTO-413

Notice of Draftsperson's Patent Drawing Review, PTO-948

Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 19 to 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Bright et al. (U.S. Pat. No. 3, 969, 043).

Referring to claim 19, Bright et al. disclose a method of enclosing a C-frame motor comprising the steps of:

providing a motor assembly (figure 5) having a stator (174), a rotor (160) and at least one bobbin having electrical conductor windings situated thereon;

providing an end plate (18) wherein said end plate is adapted to attach to said stator;

providing a motor housing (20) defining an aperture (facing the end plate 18) having portions configured to encompass said motor wherein said housing is attached to said motor via attachment to said end plate; and,

securing said housing to said end plate.

Referring to claim 20, Bright et al. disclose a step of providing said housing with a radially extended portion (20) adapted to enclose said at least one bobbin.

Art Unit: 2834

Referring to claim 21, Bright et al. disclose the steps of providing an impeller (90) and providing a rotor shaft (162) attached to said rotor whereby rotation of said rotor shaft rotates said impeller.

Referring to claim 22, Bright et al. disclose a step of providing an end cap (18) adapted to encompass said impeller such that said impeller can freely rotate within said end cap (figure 4A).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 to 2, 4 to 8, 10 to 11, 14 to 16, 18 and 24 to 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. in view J. E. Baclawski (U.S. Pat. No. 3, 243, 619).

Bright et al. disclose a C-frame motor comprising:

a stator (174) having a plurality of electrically conductive laminations (176) wherein said laminations have portions which define rotor apertures for receiving a rotor and portions which define radially extended projections for receiving a bobbin;

at least one bobbin having a plurality of coils comprising at least one wound electrical conductor wherein said at least one bobbin is attached to said stator lamination projections; and,

a housing (18, 20) configured to encompass said stator, said rotor and said at least one bobbin wherein said housing is attached to said stator; and that

said housing comprises a main housing body (20) and an end cap (18);

said end plate (18) configured and adapted to attach to said stator (174) wherein said end plate (18) has apertures (154) for receiving mechanical fasteners (182); and that

said housing has portions defining at least one attachment (156) in axial relationship with said housing body; and that

said housing is attached to said end plate with mechanical fasteners (182); and

at least one impeller (90); and that

said housing has a first end (18) configured to encompass said at least one impeller (90) such that said impeller can freely rotate within said housing (figure 4); and that

said housing (18, 20) has portions (20) defining a bobbin extension extending radially from said housing (18, 20) and sized to encompass said at least one bobbin; and that

said housing comprises a main housing (20) and an end housing (18); and that

said end housing is matingly engaged to a first end of said main housing (figure 9); and that

said end housing is a solid enclosure (20); and

securing said motor assembly to said housing by placing said motor assembly into said housing from an anterior end of said housing so that said motor assembly is aligned with the aperture defined by a main housing end-cap receiving portion. However, Bright et al. do not

Art Unit: 2834

disclose a rotor having a plurality of laminations and sized to be received within said rotor apertures of said stator laminations; nor maintaining an air gap of at least 0.010 inches between said housing and said motor assembly.

J. E. Baclawski discloses a rotor (3) having a plurality of laminations (column 3, lines 10 to 13) and sized to be received within said rotor apertures of said stator laminations, for the purpose of forming a squirrel cage type rotor.

It would have been obvious at the time the invention was made to modify the C-frame motor of Bright et al. and provide it with a rotor having a plurality of laminations and sized to be received within said rotor apertures of said stator laminations as disclosed by J. E. Baclawski, for the purpose of forming a squirrel cage type rotor.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to keep a gap of at least 0.010 inches between the housing and the motor assembly, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

5. Claims 3, 9, 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. in view of J. E. Baclawski and further in view of Metheny et al. (U.S. Pat. No. 5,763,969).

Art Unit: 2834

Bright et al. and J. E. Baclawski disclose a C-frame motor as described on item 2 above. However, neither Bright et al. nor J. E. Baclawski disclose that the end cap has vent slots, nor that rotating said impeller induces air flow over said motor.

Metheny et al. disclose that the end cap has vent slots (figures 2 and 3), and that rotating said impeller (60) induces air flow over said motor (column 1, lines 25 to 37), for the purpose of providing improved cooling of power electronic devices contained in the motor.

It would have been obvious at the time the invention was made to modify the C-frame motor of Bright et al. and J. E. Baclawski and provide it with an end cap having vent slots, in which rotating said impeller induces air flow over said motor as disclosed by Metheny et al., for the purpose of improving cooling efficiency in the motor embodiment during operation.

6. Claims 12 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bright et al. in view of J. E. Baclawski as applied to claim 11 above, and further in view of Eheim (U. S. Pat. No. 3, 635, 594).

Bright et al. and J. E. Baclawski disclose a C-frame motor as described on item 2 above. However, neither Bright et al. nor J. E. Baclawski disclose that said main housing has a radially extended projection provided to conform to the shape of said stator, said rotor, and said at least one bobbin having vent slots.

Eheim disclose that said main housing (9) has a radially extended projection (towards the upper portion of 9) provided to conform to the shape of said stator, said rotor, and said at least

Art Unit: 2834

one bobbin, having vent slots (26), for the purpose of providing for interchange of cooling air and ventilation of the motor.

It would have been obvious at the time the invention was made to modify the C-frame motor of Bright et al. and J. E. Baclawski and provide it with the main housing having a radially extended projection provided to conform to the shape of the stator, the rotor, and the at least one bobbin, having vent slots as disclosed by Eheim, for the purpose of providing for interchange of cooling air and ventilation of the motor.

Response to Arguments

7. Applicant's arguments filed on May 17, 2000 have been fully considered but they are not persuasive.

Originally, claim 13 depended on claim 1 and recited that the radially extended projection of the stator had vent slots. Page 9 lines, 7 to 10 of the specification teaches that the vent slots are formed in the housing and not in the stator laminations. With the amendment of claim 13 to be dependent on claim 12, the examiner understands that the radially extended projections of claim 13, refers to the radially extended projections of the housing, as described on claim 12.

In response to Applicant's argument that Bright et al. include additional structure not required by Applicant's invention (i.e. a pump), it must be noted that Bright et al. discloses the invention as claimed. The fact that it discloses additional structure not claimed is irrelevant.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., a vented

Art Unit: 2834

housing) are not recited in the rejected claim 19. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In figure 9 of Bright et al., can be noted that the housing (18, 20) has been extended radially to provide the space necessary to cover the bobbin of the electric motor. The right portion of the housing (18, 20) of Bright can be considered to be an extended portion. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., optional vent slots) are not recited in the rejected claim 20. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that the impeller is part of the pump assembly and that it is used to pump a process fluid and not used to draw air over the motor for cooling processes, a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In a claim drawn to a process of making, the intended use must result in a manipulative difference as compared to the prior art. See *In re Casey*, 152 USPQ 235 (CCPA 1967) and *In re Otto*, 136 USPQ 458, 459 (CCPA 1963).

Art Unit: 2834

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., vent slots) are not recited in the rejected claim 22. Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). By looking to figures 4 and 4A of Bright et al. it is understood that figure 4A is a cross section of figure 4 (across lines labeled 4A) and amplified in figure 4A. Therefore figure 4A is an end plate because is part of the housing assembly (18, 20).

Although Metheny et al. is directed to cooling the motor drive instead of the motor itself, it has to be noted that cooling the motor with air provided by a fan attached to the rotor is known in the art as described on column 1, lines 25 to 37 of Metheny et al.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See the Notice of References Cited for art relevant to the Applicant's claimed invention.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2834

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Guillermo Perez whose telephone number is (703) 306-5443.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez, can be reached on (703) 308-1371. The fax phone number for the organization where this application is proceeding is assigned is (703) 308-5841.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

GP

July 14, 2000



NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800